

REMARKS

Prior to entry of this paper, claims 22, 23 and 25-37 were pending. Claim 23 was allowed, and Claims 22, 26, 27, and 33 were rejected. Claims 34-37 were objected to, but were identified as being allowable if rewritten in independent form. Claims 25 and 28-32 were identified as being allowable if rewritten or amended to overcome the rejection under 35 U.S.C. § 112, second paragraph. In this paper, Claim 22 is cancelled, Claims 25, 26, 28, 33-35 are amended, and new Claims 41-47 are added. Claims 23, 25-37, and 41-47 are currently pending. No new matter is added by way of this amendment. For at least the following reasons, Applicants respectfully submit that each of the presently pending claims is in condition for allowance.

Allowed Subject Matter (Claims 23 and 34-37)

Claim 23 is allowed.

Claims 34-37 were identified as being allowable if rewritten in independent form. In this paper, Claims 34 and 35 have been re-written in independent form. Claims 36 and 37 depend from Claim 35. For at least these reasons, it is respectfully submitted that Claims 34-37 are in condition for allowance.

Claim Rejections under 35 U.S.C. § 112, second paragraph (Claims 25-32)

Claims 22, 25, 26 and 28-32 were rejected under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants respectfully submit that the rejection under 35 USC § 112, second paragraph is moot in light of the amendment to Claim 25 and the amendment to Claim 28.

Claims 25 and 28-32 were identified as being allowable if rewritten or amended to overcome the rejections under 35 U.S.C. § 112, second paragraph. Accordingly, Applicants respectfully submit that Claims 25 and 28-32 are in condition for allowance.

Claims 26 and 27 are respectfully submitted to be allowable at least because they depend from allowable Claim 25.

Claim 33 and new Claims 41-47

Claims 33 as amended is respectfully submitted to be allowable at least because Singer does not disclose, “the constant voltage difference circuit includes a first transistor and a first diode”, as recited in Applicants’ Claim 33 as amended.

Claim 41 is respectfully submitted to be allowable at least because it depends on allowable Claim 28.

Claim 42 is respectfully submitted to be allowable at least because Singer does not disclose, “maintaining the substantially constant voltage difference between the control input voltage and the input voltage is not accomplished via capacitive sampling”, as recited in Applicants’ Claim 42.

Claim 43 is respectfully submitted to be allowable at least because Singer does not disclose, “the boost voltage is greater than the supply voltage even if an input voltage at the input node is zero”, as recited in Applicants’ Claim 43. In circuit shown in FIG. 7 of Singer, the voltage at node N1 is $V_{in} + V_{++} - V_{--}$. See Column 12, line 30 of Singer. Accordingly, in the circuit shown in FIG. 7 of Singer, if input voltage V_{in} is zero volts, the voltage at node N1 is equal to the supply voltage V_{++} , rather than being greater than the supply voltage.

Claim 44 is respectfully submitted to be allowable at least because Singer does not disclose, “the current source circuit includes a current mirror”, as recited in Applicants’ Claim 44.

Claim 45 is respectfully submitted to be allowable at least because Singer does not disclose, “the current source circuit, the first component, and the second component are coupled in series”, as recited in Applicants’ Claim 45.

Claim 46 is respectfully submitted to be allowable at least because Singer does not disclose, “maintaining the substantially constant voltage difference between the control input voltage and the input voltage is not accomplished via capacitive sampling”, as recited in Applicants’ Claim 46.

Claim 47 is respectfully submitted to be allowable at least because Singer does not disclose, “providing the control input signal includes: receiving the bias current at a control input node, wherein the control input of the switch circuit is coupled to the control input node; employing a first gate-to-source voltage to provide a voltage drop between the control input node and another node; .

and employing a second gate-to-source voltage to provide a voltage drop between the other node and the input node”, as recited in Applicants’ Claim 47.

CONCLUSION

It is respectfully submitted that each of the presently pending claims (Claims 23, 25-37, and 41-47) is in condition for allowance and notification to that effect is requested. The Examiner is invited to contact the Applicants' representative at the below-listed telephone number if it is believed that the prosecution of this application may be assisted thereby. Although only certain arguments regarding patentability are set forth herein, there may be other arguments and reasons why the claimed invention is patentable. Applicant reserves the right to raise these arguments in the future.

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Respectfully submitted,

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